46

RAW SEQUENCE LISTING PATENT APPLICATION US/08/702,525

DATE: 01/12/98 TIME: 12:00:15

INPUT SET: S22465.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

VIERED 1 SEQUENCE LISTING 2 3 (1) General Information: 4 5 6 (i) APPLICANT: Sharpe, Sharpe 7 Borriello, Francescopaolo 8 Freeman, Gordon 9 Nadler, Lee 10 11 (ii) TITLE OF INVENTION: Novel Forms of T Cell Costimulatory 12 Molecules and Uses Therefor 13 (iii) NUMBER OF SEQUENCES: 14 65 15 16 (iv) CORRESPONDENCE ADDRESS: 17 (A) ADDRESSEE: LAHIVE & COCKFIELD 18 (B) STREET: 28 State Street 19 (C) CITY: Boston 20 (D) STATE: Massachusetts 21 (E) COUNTRY: USA 22 (F) ZIP: 02109-1875 23 24 (V) COMPUTER READABLE FORM: 25 (A) MEDIUM TYPE: Floppy disk 26 (B) COMPUTER: IBM PC compatible 27 (C) OPERATING SYSTEM: PC-DOS/MS-DOS 28 (D) SOFTWARE: ASCII Text 29 30 (vi) CURRENT APPLICATION DATA: (A) APPLICATION NUMBER: 31 32 (B) FILING DATE: 33 34 (vi) PRIOR APPLICATION DATA: 35 (A) APPLICATION NUMBER: US 08/205,697 36 (B) FILING DATE: 02-Mar-1994 37 38 (viii) ATTORNEY/AGENT INFORMATION: 39 (A) NAME: Mandragouras, Amy E. 40 (B) REGISTRATION NUMBER: 36,207 41 (C) REFERENCE/DOCKET NUMBER: BWI-120CPUS 42 43 (ix) TELECOMMUNICATION INFORMATION: 44 (A) TELEPHONE: (617)227-7400 45 (B) TELEFAX: (617)227-5941

RAW SEQUENCE LISTING PATENT APPLICATION US/08/702,525

DATE: 01/12/98 TIME: 12:00:20

INPUT SET: S22465.raw

47 48	(2) INFORMATION FOR SEQ ID NO:1:														
49	(2) INFORMATION FOR SEQ ID NO.1.														
50	(i) SEQUENCE CHARACTERISTICS:														
51	(A) LENGTH: 1888 base pairs														
52															
53	(B) TYPE: nucleic acid														
54	(C) STRANDEDNESS: double														
55	(D) TOPOLOGY: linear														
56															
57	(ii) MOLECULE TYPE: cDNA														
58	(in) DRAMUNG.														
59	(ix) FEATURE: (A) NAME/KEY: CDS														
60 61	• •														
62	(B) BOCKITON. 2491200														
63	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:														
64	(AI) DECORNCE DESCRIPTION. DEC ID NO.I.														
65															
66	GAGTTTTATA CCTCAATAGA CTCTTACTAG TTTCTCTTTT TCAGGTTGTG AAACTCAACC	60													
67															
68	TTCAAAGACA CTCTGTTCCA TTTCTGTGGA CTAATAGGAT CATCTTTAGC ATCTGCCGGG	120													
69															
70	TGGATGCCAT CCAGGCTTCT TTTTCTACAT CTCTGTTTCT CGATTTTTGT GAGCCTAGGA	180													
71															
72	GGTGCCTAAG CTCCATTGGC TCTAGATTCC TGGCTTTCCC CATCATGTTC TCCAAAGCAT	240													
73															
74	CTGAAGCT ATG GCT TGC AAT TGT CAG TTG ATG CAG GAT ACA CCA CTC CTC	290													
75	Met Ala Cys Asn Cys Gln Leu Met Gln Asp Thr Pro Leu Leu														
76	1 5 10														
77 78	AAG TTT CCA TGT CCA AGG CTC AAT CTT CTC TTT GTG CTG CTG ATT CGT	338													
79	Lys Phe Pro Cys Pro Arg Leu Asn Leu Leu Phe Val Leu Leu Ile Arg	336													
80	15 20 25 30														
81															
82	CTT TCA CAA GTG TCT TCA GAT GTT GAT GAA CAA CTG TCC AAG TCA GTG	386													
83	Leu Ser Gln Val Ser Ser Asp Val Asp Glu Gln Leu Ser Lys Ser Val														
84	35 40 45														
85															
86	AAA GAT AAG GTA TTG CTG CCT TGC CGT TAC AAC TCT CCT CAT GAA GAT	434													
87	Lys Asp Lys Val Leu Leu Pro Cys Arg Tyr Asn Ser Pro His Glu Asp														
88	50 55 60														
89															
90	GAG TCT GAA GAC CGA ATC TAC TGG CAA AAA CAT GAC AAA GTG GTG CTG	482													
91	Glu Ser Glu Asp Arg Ile Tyr Trp Gln Lys His Asp Lys Val Val Leu														
92	65 70 75														
93															
94	TCT GTC ATT GCT GGG AAA CTA AAA GTG TGG CCC GAG TAT AAG AAC CGG	530													
95 06	Ser Val Ile Ala Gly Lys Leu Lys Val Trp Pro Glu Tyr Lys Asn Arg														
96 97	80 85 90														
9 <i>1</i> 98	ACT TTA TAT GAC AAC ACT ACC TAC TCT CTT ATC ATC CTG GGC CTG GTC	578													
99	Thr Leu Tyr Asp Asn Thr Thr Tyr Ser Leu Ile Ile Leu Gly Leu Val	3,0													

RAW SEQUENCE LISTING PATENT APPLICATION US/08/702,525

DATE: 01/12/98 TIME: 12:00:24

TRYPUTSET: \$22465.raw 100 105 110															77	ידיו זמו.	CET.	\$22 <i>465</i> mass
CTT TCA GAC CGG GGC ACA TAC AGC TCT GTT CAT AAA AAA AAA AAA AAA AAA AAA AAA A		95					100					105			II	IFUI		322403.ruw
Leu Ser Asp Arg Gly Thr Tyr Ser Cys Val Val Gln Lys Lys Glu Arg 104 115 120 120 120 125 125 126 126 125 126 126 126 126 126 126 126 126 126 126		amm	пах	ava	aaa	000	202	mag	3.00	mam	ama	omm.	733	330	330		101	
105																		626
105		Leu	Ser	ASP	ALG	_	1111	тут	Ser	Cys		Val	GIII	гаг	гÃЗ		Arg	
106 GGA ACG TAT GAA GTT AAA CAC TTG GCT TTA GTA AAG TTG TCC ATC AAA 674 107 108 130						113					120					125		
107 108		GGA	ACG	тат	GAA	CTTT	7 7 7	CAC	ጥጥረ፤	GCT.	ע יויים	CITTA	λλC	መመረያ	TOO	አሞሮ		674
108																		0/4
109		0 1 3		- 7 -		***	2,5		LCu		пса	***	Lyb	пси		116	nys	
110																		
112																		
112	111	GCT	GAC	TTC	TCT	ACC	CCC	AAC	ATA	ACT	GAG	TCT	GGA	AAC	CCA	TCT	GCA	722
114	112																	
The control of the	113		_										•					
116	114																	
117	115	GAC	ACT	AAA	AGG	ATT	ACC	TGC	TTT	GCT	TCC	GGG	GGT	TTC	CCA	AAG	CCT	770
118	116	Asp	Thr	Lys	Arg	Ile	Thr	Cys	Phe	Ala	Ser	Gly	Gly	Phe	Pro	Lys	Pro	
119	117		160					165					170					
120	118																	
121		CGC	TTC	TCT	TGG	TTG	GAA	AAT	GGA	AGA	GAA	TTA	CCT	GGC	ATC	AAT	ACG	818
122		_	Phe	Ser	Trp	Leu	Glu	Asn	Gly	Arg	Glu	Leu	Pro	Gly	Ile	Asn		
ACA ATT TCC CAG GAT CCT GAA TCT GAA TTG TAC ACC ATT AGT AGC CAA 866 124		175					180					185					190	
The file Ser Gln Asp Pro Glu Ser Glu Leu Tyr Thr Tile Ser Ser Gln 205																		
125																		866
126 127 CTA GAT TTC AAT ACG ACT CGC AAC CAC ACC ATT AAG TGT CTC ATT AAA 128 Leu Asp Phe Asn Thr Thr Arg Asn His Thr Ile Lys Cys Leu Ile Lys 129 130 131 TAT GGA GAT GCT CAC GTG TCA GAG GAC TTC ACC TGG GAA AAA CCC CCA 132 Tyr Gly Asp Ala His Val Ser Glu Asp Phe Thr Trp Glu Lys Pro Pro 133		Thr	тте	Ser	GIN	_	Pro	GIU	Ser	GLu		Tyr	Thr	IIe	Ser		GIn	
127						195					200					205		
128		CITTA	CAT	mme.	חמגג	N.C.C	N CITT	aaa	224	CAC	N C C	a mm	220	mam	ama	a mm		014
129																		914
130		Leu	кар	FIIE		1111	1111	Arg	ASII		1111	116	гåр	Cys		TTE	гуs	
131 TAT GGA GAT GCT CAC GTG TCA GAG GAC TTC ACC TGG GAA AAA CCC CCA 132 Tyr Gly Asp Ala His Val Ser Glu Asp Phe Thr Trp Glu Lys Pro Pro 133					210					213					220			
132 Tyr Gly Asp Ala His Val Ser Glu Asp Phe Thr Trp Glu Lys Pro Pro 133		ТАТ	GGA	GAT	GCT	CAC	GTG	TCA	GAG	GAC	ттс	ACC	TGG	GAA	ΔΔΔ	ccc	CCA	962
133																		,02
134 135 GAA GAC CCT CCT GAT AGC AAG AAC ACA CTT GTG CTC TTT GGG GCA GGA 1010 136 Glu Asp Pro Pro Asp Ser Lys Asn Thr Leu Val Leu Phe Gly Ala Gly 137 240 245 250 138 139 TTC GGC GCA GTA ATA ACA GTC GTC GTC ATC GTT GTC ATC ATC AAA TGC 140 Phe Gly Ala Val Ile Thr Val Val Val Ile Val Val Ile Ile Lys Cys 141 255 260 270 142 143 TTC TGT AAG CAC GGT CTC ATC TAC CAT TTG CAA CTG ACC TCT TCT GCA 144 Phe Cys Lys His Gly Leu Ile Tyr His Leu Gln Leu Thr Ser Ser Ala 145 275 280 285 146 147 AAG GAC TTC AGA AAC CTA GCA CTA CCC TGG CTC TGC AAA CAC GGT TCT 1154 148 Lys Asp Phe Arg Asn Leu Ala Leu Pro Trp Leu Cys Lys His Gly Ser 149 290 295 300		-1-	4	_						-					-1-			
136	134																	
136	135	GAA	GAC	CCT	CCT	GAT	AGC	AAG	AAC	ACA	CTT	GTG	CTC	TTT	GGG	GCA	GGA	1010
138 139	136	Glu	Asp	Pro	Pro	Asp	Ser	Lys	Asn	Thr	Leu	Val	Leu	Phe	Gly	Ala	Gly	
TTC GGC GCA GTA ATA ACA GTC GTC GTC GTC GTC ATC ATC ATC ATC AAA TGC TGC ATC ATC	137		240					245					250				_	
140 Phe Gly Ala Val Ile Thr Val Val Val Ile Val Val Ile Val Ile Ile Lys Cys 141 255 260 265 270 142 255 270 270 143 TTC TGT AAG CAC GGT CTC ATC TAC CAT TTG CAA CTG ACC TCT TCT GCA 1106 144 Phe Cys Lys His Gly Leu Ile Tyr His Leu Gln Leu Thr Ser Ser Ala 285 145 275 280 285 146 280 285 147 AAG GAC TTC AGA AAC CTA GCA CTA CCC TGG CTC TGC AAA CAC GGT TCT 1154 148 Lys Asp Phe Arg Asn Leu Ala Leu Pro Trp Leu Cys Lys His Gly Ser 300 149 290 295 300	138																	
141 255 260 265 270 142 143 TTC TGT AAG CAC GGT CTC ATC TAC CAT TTG CAA CTG ACC TCT TCT GCA 144 Phe Cys Lys His Gly Leu Ile Tyr His Leu Gln Leu Thr Ser Ser Ala 145 275 280 285 146 147 AAG GAC TTC AGA AAC CTA GCA CTA CCC TGG CTC TGC AAA CAC GGT TCT 148 Lys Asp Phe Arg Asn Leu Ala Leu Pro Trp Leu Cys Lys His Gly Ser 149 290 295 300 150																		1058
142 143 TTC TGT AAG CAC GGT CTC ATC TAC CAT TTG CAA CTG ACC TCT TCT GCA 1106 144 Phe Cys Lys His Gly Leu Ile Tyr His Leu Gln Leu Thr Ser Ser Ala 285 145 275 280 285 146 280 285 147 AAG GAC TTC AGA AAC CTA GCA CTA CCC TGG CTC TGC AAA CAC GGT TCT 1154 148 Lys Asp Phe Arg Asn Leu Ala Leu Pro Trp Leu Cys Lys His Gly Ser 300 149 290 295 300 150			Gly	Ala	Val	Ile	Thr	Val	Val	Val	Ile		Val	Ile	Ile	Lys	Cys	
143 TTC TGT AAG CAC GGT CTC ATC TAC CAT TTG CAA CTG ACC TCT TCT GCA 144 Phe Cys Lys His Gly Leu Ile Tyr His Leu Gln Leu Thr Ser Ser Ala 145 275 280 285 146 147 AAG GAC TTC AGA AAC CTA GCA CTA CCC TGG CTC TGC AAA CAC GGT TCT 148 Lys Asp Phe Arg Asn Leu Ala Leu Pro Trp Leu Cys Lys His Gly Ser 149 290 295 300 150		255					260					265					270	
144 Phe Cys Lys His Gly Leu Ile Tyr His Leu Gln Leu Thr Ser Ser Ala 145 275 280 285 146 147 AAG GAC TTC AGA AAC CTA GCA CTA CCC TGG CTC TGC AAA CAC GGT TCT 1154 148 Lys Asp Phe Arg Asn Leu Ala Leu Pro Trp Leu Cys Lys His Gly Ser 149 290 295 150 300																		
145 275 280 285 146 147 AAG GAC TTC AGA AAC CTA GCA CTA CCC TGG CTC TGC AAA CAC GGT TCT 1154 148 Lys Asp Phe Arg Asn Leu Ala Leu Pro Trp Leu Cys Lys His Gly Ser 149 290 295 300 150																		1106
146 147 AAG GAC TTC AGA AAC CTA GCA CTA CCC TGG CTC TGC AAA CAC GGT TCT 148 Lys Asp Phe Arg Asn Leu Ala Leu Pro Trp Leu Cys Lys His Gly Ser 149 290 295 300 150		Phe	Cys	Lys	His		Leu	Ile	Tyr	His		GIn	Leu	Thr	Ser		Ala	
147 AAG GAC TTC AGA AAC CTA GCA CTA CCC TGG CTC TGC AAA CAC GGT TCT 148 Lys Asp Phe Arg Asn Leu Ala Leu Pro Trp Leu Cys Lys His Gly Ser 149 290 295 300 150						275					280					285		
Lys Asp Phe Arg Asn Leu Ala Leu Pro Trp Leu Cys Lys His Gly Ser 149 290 295 300 150		220	0.0	mma	3.03		OE 3	aa.	OID 3	000	maa	ar.	mc~		a	~~	me	
149 290 295 300 150																		1154
150		пÀ2	ASP	rne	-	ASN	ьeu	ATG	ьeu		пр	ren	cys	гÀ2		стА	ser	
					230					233					200			
1202		СТА	ССТ	GAA	GCC	ጥርጥ	GCA	GTG	Δηνην	ጥሮሮ	ΔGΔ	Δርጥ	Δርጥ	CAG	ΔCG	ΔΔΤ	GAA	1202
152 Leu Gly Glu Ala Ser Ala Val Ile Cys Arg Ser Thr Gln Thr Asn Glu																		1202

205

RAW SEQUENCE LISTING PATENT APPLICATION US/08/702,525

DATE: 01/12/98 TIME: 12:00:27

INPUT SET: S22465.raw

			INPUT SET: S2246	NPUT SET: S22465.raw			
153	305	310	315				
154							
155	CCA CAG TAGTTCTGCT GTTT	CTGAGG ACGTAGTTTA GAG	ACTGAAT TCTTTGGAAA	1258			
156	Pro Gln						
157	320						
158							
159	GGACATAGGG ACAGTTTGCA C	ATTTGCTTG CACATCACAC	ACACACACA ACACACACA	1318			
160							
161	ACACACACA ACACACACA A	CACACACAC ACACACACAC	TCTCTCTCT TCTCTCTC	1378			
162							
163	GATACCTTAG GATAGGGTTC T	ACCCTGTTG CTCAGTGACA	AAGAATCACT CTGTGGCGGA	1438			
164							
165	GGCAGGCTTC AAGCTTGCAG C	AATCCTCCT GCACCAGTTT	CCTGAGTGCC AGACTTCCAG	1498			
166							
167	GTGTAAGCTA TGGCACTTAG C	AGAACACTA GCTGAATCAA	TGAAGACACT GAGGTTCCAA	1558			
168							
169	GAGGGAACCT GAATTATGAA G	GTGAGTCAG AATCCAGATT	TCCTGGCTCT ACCACTCTTA	1618			
170							
171	ACCTGTATCT GTTAGACCCC A	AGCTCTGAG CTCATAGACA	AGCTAATTTA AAATGCTTTT	1678			
172	·						
173	TAATAAGCAG AAGGCTCAGT T	AGTACGGGG TTCAGGATAC	TGCTTACTGG CAATATTTGA	1738			
174							
175	CTAGCCTCTA TTTTGTTTGT T	ITTTAAAGG CCTACTGACT	GTAGTGTAAT TTGTAGGAAA	1798			
176							
177	CATGTTGCTA TGTATACCCA T	ITGAGGGTA ATAAAAATGT	TGGTAATTTT CAGCCAGCAC	1858			
178			•				
179	TTTCCAGGTA TTTCCCTTTT T	ATCCTTCAT		1888			
180							
181		_					
182	(2) INFORMATION FOR SEQ	ID NO:2:					
183							
184	(i) SEQUENCE CHA						
185	* *	: 320 amino acids					
186	(B) TYPE:						
187	(D) TOPOLO	GY: linear					
188							
189	(ii) MOLECULE TYP	E: protein					
190							
191	(X1) SEQUENCE DES	CRIPTION: SEQ ID NO:2	:				
192							
193	Met Ala Cys Asn Cys Gln						
194	1 5	10	15				
195							
196	Pro Cys Pro Arg Leu Asn		_				
197	20	25	30				
198							
199	Gln Val Ser Ser Asp Val	_					
200	35	40	45				
201							
202	Lys Val Leu Leu Pro Cys		-				
203	50	55	60				
204							

Glu Asp Arg Ile Tyr Trp Gln Lys His Asp Lys Val Val Leu Ser Val

RAW SEQUENCE LISTING PATENT APPLICATION US/08/702,525

DATE: 01/12/98 TIME: 12:00:30

INPUT SET: S22465.raw

206	65					70					75			II	VPUI	<i>SE1: 1</i>
207																
208	Ile	Ala	Gly	Lys	Leu	Lys	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Leu
209					85					90					95	
210										_		_				
211	Tyr	Asp	Asn		Thr	Tyr	Ser	Leu		Ile	Leu	Gly	Leu		Leu	Ser
212				100					105					110		
213	•	•	41	m\		~	a	••- 7	•• - 7	~ 1	•	•		_	۳٦	_,
214	Asp	Arg	_	Thr	туг	ser	cys	Val	vaı	GIN	Lys	гàг		Arg	GTĀ	Thr
215 216			115					120					125			
217	ጥህዮ	Glu	Val	T.vc	Hic	T. - 11	λla	Leu	Val	T. 17 C	T. 6 11	Sar	Tla	Luc	λla	Aen
218	- 3 -	130	*41	шуы	1113	пса	135	пса	Val	Буз	пец	140	116	цуз	AIG	ASP
219																
220	Phe	Ser	Thr	Pro	Asn	Ile	Thr	Glu	Ser	Gly	Asn	Pro	Ser	Ala	Asp	Thr
221	145					150				•	155					160
222																
223	Lys	Arg	Ile	Thr	Cys	Phe	Ala	Ser	Gly	Gly	Phe	Pro	Lys	Pro	Arg	Phe
224					165					170					175	
225				_												
226	Ser	Trp	Leu		Asn	Gly	Arg	Glu		Pro	Gly	Ile	Asn		Thr	Ile
227				180					185					190		
228	~	a1	.	D	~ 1	a	a 1	•	M	m1	-1-	a	~	a 3	-	•
229 230	ser	GIN	195	Pro	GIU	ser	GIU	Leu	туг	Thr	тте	Ser		GIN	Leu	Asp
231			190					200					205			
232	Phe	Δsn	Thr	Thr	Δra	Δen	Hic	Thr	Tla	T.ve	Cue	T.011	т1ь	Lve	ጥመ	G] v
233	1 110	210	****	****	7.9	Abii	215	1111	116	БуЗ	Cys	220	116	цуз	ıyı	GLY
234																
235	Asp	Ala	His	Val	Ser	Glu	Asp	Phe	Thr	Trp	Glu	Lys	Pro	Pro	Glu	Asp
236	225					230	•			•	235	-				240
237																
238																
239	Pro	Pro	Asp	Ser	Lys	Asn	Thr	Leu	Val		Phe	Gly	Ala	Gly	Phe	Gly
240					245					250					255	
241													_			
242	АТа	vaı	тте		vaı	vaı	Va⊥	Ile		Val	ITe	IIe	Lys	-	Phe	Cys
243 244				260					265					270		
244	Tuc	Uic	@1 v	T 011	т1Д	m.	uic	Leu	cl n	LOU	mb r	202	Sor	λl -	T ***	A cm
246	цуз	1113	275	пеп	TTE	TYL	птэ	280	GIII	пеп	1111	261	285	мта	гуз	ASP
247			2,75					200					203			
248	Phe	Ara	Asn	Leu	Ala	Leu	Pro	Trp	Leu	Cvs	Lvs	His	Glv	Ser	Leu	Glv
249		290					295			-1-	-1-	300	1			1
250																
251	Glu	Ala	Ser	Ala	Val	Ile	Cys	Arg	Ser	Thr	Gln	Thr	Asn	Glu	Pro	Gln
252	305					310					315					320
253																
254																
255	(2)	INF	ORMAT	NOI	FOR	SEQ	ID I	10:3	:							
256																
257		(i)						ISTIC								
258			()	i) Li	SNGTH	1: 25) 10 T	oase	pali	S						

RAW SEQUENCE LISTING PATENT APPLICATION US/08/702,525

DATE: 01/12/98 TIME: 12:00:35

INPUT SET: S22465.raw

***** PREVIOUSLY ERRORED SEQUENCES - EDITED *****

3001	(2)	INF	ORMA	TION	FOR	SEQ	ID I	NO: 6	5:							
3002 3003	(i) SEQUENCE CHARACTERISTICS:															
3004	(A) LENGTH: 226 amino acids															
3005	(B) TYPE: amino acid															
3006	(D) TOPOLOGY: linear															
3007																
3008		(:	ii) 1	MOLE	CULE	TYPI	E: pi	rote:	in							
3009																
3010		()	Ki) :	SEQU	ENCE	DES	CRIP	rion:	: SE	OID	NO:	65:				
3011									_							_
3012		Ala	Cys	Asn	_	Gln	Leu	Met	Gln	_	Thr	Pro	Leu	Leu	-	Phe
3013	1				5					10					15	
3014		~	-	•	•	-1.			_,	,	_	_		_	_	
3015	Pro	cys	Pro	_	Leu	тте	Leu	Leu		vaı	Leu	Leu	IIe	Arg	Leu	Ser
3016 3017				20					25					30		
3017	Cln.	Va I	Cor	602	N cm	Wal.	3 ~~	a 1	a1 n	T 011	C - ~	T •••	C	Val	T	3
3019	GIII	vaı	35	Ser	ASP	vaı	АБР	40	GIII	Leu	Ser	гуз	45	vaı	гуѕ	ASP
3020			33					40					43			
3021	T.vs	Va1	T.e.11	T.011	Pro	Cve	Δra	ጥህፖ	Acn	Ser	Dro	Hie	Glu	Asp	G] 11	Sor
3022	2,5	50	Lea	Deu	110	Cys	55	- y -	ASII	Ser	110	60	GIU	изр	Giu	Der
3023		•										•				
3024	Glu	Asp	Arq	Ile	Tvr	Trp	Gln	Lvs	His	Asp	Lvs	Val	Val	Leu	Ser	Val
3025	65		3		-1-	70		-1-			75					80
3026																-
3027	Ile	Ala	Gly	Lys	Leu	Lys	Val	Trp	Pro	Glu	Tyr	Lys	Asn	Arg	Thr	Leu
3028			_	_	85	_		_		90	_	_		_	95	
3029																
3030	Tyr	Asp	Asn	Thr	Thr	Tyr	Ser	Leu		Ile	Leu	Gly	Leu	Val	Leu	Ser
3031				100					105					110		
3032								_	_	_			_		_	
3033	Asp	Arg	_	Thr	Tyr	Ser	Cys		Val	Gln	Lys	Lys		Arg	Gly	Thr
3034			115					120					125			
3035	М	a1	*** 1	T	TT.1	T		T	1	•	+	a	-1 -	•		
3036 3037	Tyr	130	vaı	гÀг	HIS	Leu	135	Leu	vaı	гÀг	Leu		тте	Lys	Pro	Pro
3037		130					133					140				
3039	Glu	Nen	Dro	Dro	Nan	Sor	Tuc	λen	Thr	T 011	Val	T 011	Dho	61.	۸ J م	al
3040	145	rap	FIU	FIU	vaħ	150	пуз	WOII	TILL	ьeu	155	ne a	FIIG	Gly	HIG	160
3041	143					100					133					100
3042	Phe	G] v	Ala	Val	IJe	Thr	Val	Val	Val	Tle	Val	Val	Tle	Ile	T.vs	Cvs
3042	- 110	7	u		165		, 41		144	170	+ U.I.	* u T		-TE	175	-75
3044															_,,	
3045	Phe	Cvs	Lvs	His	Glv	Leu	Ile	Tvr	His	Leu	Gln	Lev	Thr	Ser	Ser	Ala
3046		1-		180	1			- 2 -	185					190		
3047														-		

RAW SEQUENCE LISTING PATENT APPLICATION US/08/702,525

DATE: 01/12/98 TIME: 12:00:39

INPUT	SET:	S22465	.raw
-------	------	--------	------

														#1	VPUI	3E1: 322403.ran	,
3048 3049	Lys	Asp	Phe 195	Arg	Asn	Leu	Ala	Leu 200	Pro	Trp	Leu	Cys	Lys 205	His	Gly	Ser	
3050																	
3051	Leu	Gly	Glu	Ala	Ser	Ala	Val	Ile	Cys	Arg	Ser	Thr	Gln	Thr	Asn	Glu	
3052		210					215					220					
3053																	
3054	Pro	Gln															
3055	225																
3056																	
3057																	
3058																	
3059																	
3060																	
3061																	
3062																	

SEQUENCE VERIFICATION REPORT PATENT APPLICATION *US/08/702,525*

DATE: 01/12/98 TIME: 12:00:40

INPUT SET: S22465.raw

Line Error

Original Text